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NSF's Erich Bloch

An industrialist pushes agency in new directions

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News of the Week

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Cover: Photo courtesy of NSF

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Technology

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News Focus

Focus of Erich Bloch, director of the National Science Foundation, is clearly on the world of science and technology and how to make it better. **Page 6**

ure of government to protect consumers. A spokesman for one pesticides producer asks, "How can it be the government's fault if growers choose to apply a pesticide illegally?" Officials believe that growers may have used aldicarb on the watermelons because, unlike approved insecticides which have to be applied repeatedly, one application of the pesticide is enough for the growing season.

Under its screening system, California officials are checking 20 sample watermelons from each of the state's 3500 patches—a process that will take about a week to complete. Berryhill says that growers whose melons pass the latest tests will be asked to declare that they have not used an aldicarb pesticide within the past 12 months. Violators will be subject to $100,000 fines for perjury. □

Suit filed to block sale of Love Canal homes

New York's attorney general has filed suit against the Love Canal Area Revitalization Agency and its chairman to block the sale or lease of six of the 450 homes in Ring 3, the so-called Emergency Declaration Area around the Love Canal hazardous waste dump in Niagara Falls.

Attorney general Robert Abrams said it was "folly to move people back to the Love Canal" when serious questions remain about the health risks to people "living in the vicinity of toxic chemical contamination." Folly or not, in May the revitalization agency decided that no harm would result from the rehabilitation and reoccupancy of the six homes. It based this decision on a limited review called an environmental assessment.

The suit argues that the environmental assessment is "legally inadequate" and calls for a more detailed environmental impact statement. Among other things, the state claims the assessment failed to consider the potential health hazards to people who move close to the abandoned waste site, and to provide information that would determine whether chemicals from the waste site have migrated or may migrate to the homes. The suit, filed in New York Superior Court, Niagara County, also claims that the agency never considered open space as an alternative land use for Ring 3.

Revitalization agency chairman Michael C. O'Laughlin, who is also mayor of Niagara Falls, says the state's suit is premature. He claims his agency, which was formed in 1980 to purchase the 450 homes in Ring 3, is many steps removed from trying to lease or sell the six homes.

Love Canal was used by Hooker Chemical & Plastics Corp., now Occidental Chemical, to dispose of some 21,000 tons of toxic chemicals from 1942 to 1953. A federal lawsuit against the firm is still pending. □

Reagan plan trims strategic materials stockpile

President Reagan has proposed new goals for the national defense stockpile of strategic materials. Following a two-year study of the stockpile, the President concluded that the goals set during the Carter Administration were too high. He is effectively lowering the dollar value of the stockpile from $16.3 billion to just $6.7 billion.

The strategic stockpile, originated in the 1950s, is a reserve of nonfuel materials that the U.S. might require in a war, but that might not be available in sufficient quantities from domestic or reliable foreign sources. The Administration has three objectives for the material in the stockpile. It should be sufficient to meet military, industrial, and essential civilian needs for a three-year conventional conflict; be consistent with Defense Department estimates; and reflect current industrial and defense mobilization requirements.

Reagan began re-evaluating the stockpile in April 1982, with the start of a major program to improve the reserve policy. A study from that effort, completed late last year, is the basis for the change in materials proposed now. Any changes in the stockpile must be approved by Congress. The present review covers 42 of the 62 materials in the reserves. The remaining materials are stockpiled in much smaller quantities and will be reviewed later.

Surplus material now in the reserve will be sold gradually over a five-year period. Funds collected from these sales, estimated to be about $2.5 billion, will be used to buy new materials, or to reduce the federal deficit. Some of the substances proposed to be dropped from the stockpile include bismuth, cadmium, fluorspar, platinum, and silicon carbide. It is also expected that as much as 50 million troy oz of silver will be sold.

The strategic reserve is a fairly sensitive topic, as many Congressmen represent districts that store or process these materials. Some amendments to pending legislation already have been made that would maintain the stockpile at the high levels set by the Carter Administration. □

New goals set for reserve strategic stockpile

Commodity	Quantities
Aluminum oxide	208,139 tons abrasive grain equivalents
Bauxite	4,278,912 tons Al[a]
Bauxite, refractory	274,926 long calcined tons
Beryllium	437 tons Be[a]
Chromite, refractory	180,000 dry tons
Chromium	594,123,000 tons Cr[a]
Cobalt	6 million lb
Copper	29,048 tons
Diamonds, industrial	7,950,000 karats
Graphite, Ceylon	415 tons
Iodine	5.5 million lb
Lead	300,000 tons
Manganese	869,667 tons Mn[a]
Mica, Muscovite block	200,000 lb
Nickel, electrolytic	5000 tons
Niobium	2,532,419 lb Nb[a]
Quartz, crystal	1.8 million lb
Rubber	127,455 metric tons
Silver	87,500,000 troy oz
Tantalum	1,023,320 lb Ta[a]
Tin	150,000 metric tons
Titanium	21,100 tons
Tungsten	52,215,245 lb W[a]
Vanadium	722 tons V metal
Zinc	85,000 tons

[a] Metal equivalents. Source: White House Office of the Press Secretary

"If you're a refiner who's had red ink for the past year, can you convince your banker to invest in an MTBE unit that might have a payback in two to three years or that, because of imports, might not have a payback for several years?" asks L. Michael Grupa, a senior consultant at Pace Consultants, Houston.

Grupa believes the opportunity to get into the MTBE business is limited. Although the banning of lead additives to gasoline will result in a surge in octane requirements, the gradual decline of gasoline consumption in the U.S. means that surge will reach a plateau. About the same time, he points out, imports of gasoline could begin to have a substantial impact.

"There might be a window of a few years of high demand for MTBE," Grupa says. "If you didn't start planning an octane enhancer unit in January, you may already be out of the game." □

Employment patterns changing in chemicals

The chemical workforce is slowly, but steadily, changing. The recession, the drive for efficiency, and the increased use of automated systems have all worked to reduce the size of the workforce and to lower the percentage of production workers within the chemical workforce. In spite of the recovery in the chemical industry, employment is still well below prerecession levels.

According to data from the Department of Labor, U.S. chemical employment reached its peak, like so many things in the chemical industry, in 1979. At that time, the government figures show, an average of 1,109,300 employees worked in the U.S. chemical industry. Some up and down movement occurred in 1980 and 1981, but 1982 and 1983 showed definite declines. By 1983, the chemical workforce had fallen to 1,046,800, almost 6% below its level just four years earlier and the lowest that it had been since 1976.

In 1984, the number of total employees in the chemicals and allied products category rose once again, increasing 1.4% to 1,061,000, but in the first quarter of this year, the average fell back once again to 1,060,400. This is essentially the same level of employment 11 years ago.

Hourly production workers in the chemicals and allied products industry have fared even worse in the past few years, according to the government figures. The total number of production workers peaked at 633,300 in 1979, but by 1983 it had fallen more than 8% to 580,700. Production employment rose 1.4% in 1984 to 589,000, but in the first quarter of this year it declined almost 1% to 584,800.

These figures also show the steady erosion of production workers as a percentage of total employment in the chemical industry. In 1976, almost 58% of chemical employees were classified as hourly production workers, up barely from 57% the year before as the 1975 recession ended for chemicals. By the end of the decade, that percentage had slipped back to 57%, but since then has declined steadily to between 55 and 56% for the past three years. In the first quarter of this year, reflecting the apparent slowdown in the chemical industry, the percentage dropped to 55%.

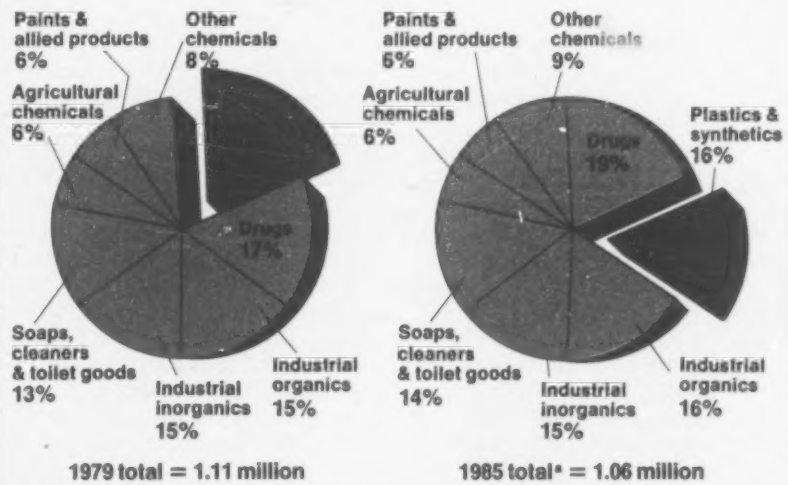
The percentages of workers in the various chemical industry sectors also have changed over the years. In 1979, 19% of all chemical industry employees were in the plastics and synthetics sector, which also includes fibers. By the first quarter of this year, that percentage had fallen to 16%. Paints and allied products as well as agricultural chemicals in this year's first quarter each employed slightly less than 6% of all chemical workers, down from a bit more than 6% in 1979.

Employment has increased or remained stable in industrial inorganics and organics, drugs, soaps, and miscellaneous chemicals. The drug industry has replaced plastics as the biggest employer of people working in the chemical industry with an almost 19% share, up from a little more than 17% in 1979. In the first quarter of 1985, industrial organics employed almost 16% of the chemical workforce, up from about 15% in 1979, and the soaps, cleaners, and toilet goods sector's employment increased to 14% from less than 13%.

Thus, it looks as if, as the 1980s progress and chemical companies move more deeply into higher-value-added products, the shift will continue away from the hourly production worker and, in terms of share of employment, toward the more specialty-oriented product categories.

William Storck, New York

Number of plastics and synthetic workers has fallen as per cent of total in past five years



a First-quarter average. **Note:** Figures do not total 100% because of rounding. **Source:** Labor Department